

## **AMENDMENTS TO THE SPECIFICATION**

Please replace the paragraph beginning on page 8, line 7 and ending on page 8, line 10 with the following paragraph rewritten in amendment format:

In the present invention of claim 8, the container designing system may subject the outer shape to a secondary processing under the condition that a shape of a finished ~~finish~~ portion of the hollow container is fixed.

Please replace the paragraph beginning on page 8, line 11 and ending on page 8, line 18 with the following paragraph rewritten in amendment format:

According to the structure of claim 8, since it is possible to subject the outer shape to a secondary processing under the condition that the shape of the finished ~~finish~~ portion is fixed, there is no case where the shape of the finished ~~finish~~ portion is automatically altered by the secondary processing. Owing to this, it is possible to subject the outer shape to a secondary processing without paying attention to the predetermined shape of the finished ~~finish~~ portion, thus improving the operationability of the secondary processing.

Please replace the paragraph beginning on page 8, line 19 and ending on page 8, line 22 with the following paragraph rewritten in amendment format:

In the present invention of claim 9, the container designing system may perform the shape modulation upon the outer shape under the condition that a shape of a finished ~~finish~~ portion of the hollow container is fixed.

Please replace the paragraph beginning on page 8, line 23 and ending on page 9, line 4 with the following paragraph rewritten in amendment format:

According to the structure of claim 9, the shape of the finished ~~finish~~ portion is not altered when the outer shape is modulated by the capacity modulating means in order that a container capacity after a shape modulation has a capacity determined by the shape condition, therefore, it is not needed to reconfirm the shape of the finished ~~finish~~ portion, thus efficiently designing the container.

Please replace the paragraph beginning on page 11, line 24 and ending on page 12, line 3 with the following paragraph rewritten in amendment format:

In the present invention of claim 16, the container designing method may subject the outer shape to a secondary processing under the condition that a shape of a finished ~~finish~~ portion of the hollow container is fixed.

Please replace the paragraph beginning on page 12, line 4 and ending on page 12, line 11 with the following paragraph rewritten in amendment format:

According to the structure of claim 16, since it is possible to subject the outer shape to a secondary processing under the condition that the shape of the finished ~~finish~~ portion is fixed, there is no case where the shape of the finished ~~finish~~ portion is automatically altered by the secondary processing. Owing to this, it is possible to subject the outer shape to a secondary processing without paying attention to the predetermined shape of the finished ~~finish~~ portion, thus improving the operationability of the secondary processing.

Please replace the paragraph beginning on page 12, line 12 and ending on page 12, line 15 with the following paragraph rewritten in amendment format:

In the present invention of claim 17, the container designing method may perform the shape modulation upon the outer shape under the condition that a shape of a finished ~~finish~~ portion of the hollow container is fixed.

Please replace the paragraph beginning on page 12, line 16 and ending on page 12, line 21 with the following paragraph rewritten in amendment format:

According to the structure of claim 17, the shape of the finished ~~finish~~ portion is not altered when the outer shape is modulated by the capacity modulating means in order that a container capacity after a shape modulation has a capacity determined by the shape condition, therefore, it is not needed to reconfirm the shape of the finished ~~finish~~ portion, thus efficiently designing the container.

Please replace the paragraph beginning on page 16, line 6 and ending on page 16, line 9 with the following paragraph rewritten in amendment format:

In the present invention of claim 25, the container designing program may subject the outer shape to a secondary processing under the condition that a shape of a finished ~~finish~~ portion of the hollow container is fixed.

Please replace the paragraph beginning on page 16, line 10 and ending on page 16, line 17 with the following paragraph rewritten in amendment format:

According to the structure of claim 25, since it is possible to subject the outer shape to a secondary processing under the condition that the shape of the finished ~~finish~~ portion is fixed, there is no case where the shape of the finished ~~finish~~ portion is automatically altered by the secondary processing. Owing to this, it is possible to subject the outer shape to a secondary processing without paying attention to the predetermined shape of the finished ~~finish~~ portion, thus improving the operationability of the secondary processing.

Please replace the paragraph beginning on page 16, line 18 and ending on page 16, line 21 with the following paragraph rewritten in amendment format:

In the present invention of claim 26, the container designing program may perform the shape modulation upon the outer shape under the condition that a shape of a finished ~~finish~~ portion of the hollow container is fixed.

Please replace the paragraph beginning on page 16, line 22 and ending on page 17, line 3 with the following paragraph rewritten in amendment format:

According to the structure of claim 26, the shape of the finished ~~finish~~ portion is not altered when the outer shape is modulated by the capacity modulating means in order that a container capacity after a shape modulation has a capacity determined by the shape condition, therefore, it is not needed to reconfirm the shape of the finished ~~finish~~ portion, thus efficiently designing the container.

Please replace the paragraph beginning on page 20, line 20 and ending on page 20, line 24 with the following paragraph rewritten in amendment format:

In the present invention of claim 34, the computer-accessible recording medium has recorded a container designing program where it is possible to subject the outer shape to a secondary processing under the condition that a shape of a finished ~~finish~~ portion of the hollow container is fixed.

Please replace the paragraph beginning on page 21, line 1 and ending on page 21, line 8 with the following paragraph rewritten in amendment format:

According to the structure of claim 34, since it is possible to subject the outer shape to a secondary processing under the condition that the shape of the finished ~~finish~~ portion is fixed, there is no case where the shape of the finished ~~finish~~ portion is automatically altered by the secondary processing. Owing to this, it is possible to subject the outer shape to a secondary processing without paying attention to the predetermined shape of the finished ~~finish~~ portion, thus improving the operationability of the secondary processing.

Please replace the paragraph beginning on page 21, line 9 and ending on page 21, line 13 with the following paragraph rewritten in amendment format:

In the present invention of claim 35, the computer-accessible recording medium has recorded a container designing program where it is possible to perform the shape modulation upon the outer shape under the condition that a shape of a finished ~~finish~~ portion of the hollow container is fixed.

Please replace the paragraph beginning on page 21, line 14 and ending on page 21, line 19 with the following paragraph rewritten in amendment format:

According to the structure of claim 35, the shape of the finished ~~finish~~ portion is not altered when the outer shape is modulated by the capacity modulating means in order that a container capacity after a shape modulation has a capacity determined by the shape condition, therefore, it is not needed to reconfirm the shape of the finished ~~finish~~ portion, thus efficiently designing the container.

Please replace the paragraph beginning on page 26, line 15 and ending on page 27, line 16 with the following paragraph rewritten in amendment format:

First of all, parametrically defined (as numerical values) shape conditions showing a rough outer shape of a container are inputted by the parametric inputting means 15 (S101, S201). A window example to realize the parametric inputting means 15 is shown in Fig.4. Note that, the container to be designed in the present embodiment is a glass bottle. However, the container is not limited to a glass bottle, and it can be of any type of hollow container, no matter how it is shaped and no matter what it is made of. As shown in Fig.4, in a parametric inputting window 20, a bottle specification 21, a glass specification 22, a contents specification 23, a bottle thickness specification 24 and the like are inputted, respectively. As concrete inputting values or the like, in the bottle specification 21, a bottle name 21a, a type 21b showing whether the bottle is a round bottle, a non-round bottle or the like, the container capacity 21c, the height 21d and a fill level 21e, which is a distance between a liquid level of the contents and a top of the bottle, are inputted. And also a fill level 21e can be a headspace capacity or a ratio of a headspace capacity to a container capacity. In the glass specification 22, the specific gravity of the glass 22a and the weight 22b are inputted. In the contents specification 23, the specific gravity of the contents 23a to be packed in the bottle, and the weight 23b are inputted. In the thickness specification 24, each thickness of the bottle portions is inputted. The portions are a finished ~~finish~~ portion 24a, a body 24b, a bottom portion 24c and the like. Note that, with respect to the values usable in common with other bottles, it would be convenient to store and keep them in the memory 5.

Please replace the paragraph beginning on page 27, line 17 and ending on page 28, line 7 with the following paragraph rewritten in amendment format:

Subsequently, a bottle shape is inputted. This is performed by inputting a cross-sectional profile (S202). Since the structure of a round bottle includes a rotation axis 27, the cross-sectional profile may be inputted by first determining a one-sided cross-sectional profile with respect to the rotation axis 27. First, a profile of a finished ~~finish~~ portion 25a is inputted on a CAD. Conventionally, the profiles of finished ~~finish~~ portions are predetermined. For example, a profile of a finished ~~finish~~ portion may be previously designed and stored in the memory 5. In this case, the stored profile is read from the memory 5 and applied to the CAD. Next, the body 25b is inputted. This is done by first inputting straight lines and combining them to form a rough profile. Intersecting points of the straight lines are then modified to form a bottle-like profile. For example, the intersecting points may be rounded to form the bottle-like profile. A bottom of the profile is generated by inputting ground width and push-up height parameters, which form a bottom 25c.



Please replace the paragraph beginning on page 30, line 6 and ending on page 30, line 20 with the following paragraph rewritten in amendment format:

Meanwhile, a subtle modulation for a parametric model is needed in order that the parametric model agrees with the capacity or the like inputted by the parametric inputting means 15. For the bottle 30, since it is restricted so as to use a predetermined shape of cap, the alteration of the body 32 and a bottom 33 will be performed without changing the shape of the finished ~~finish~~ portion 31. As an actual altering technique, a body width alteration, a full-length alteration, a similitude alteration and the like will be performed under the condition that the shape of the finished ~~finish~~ portion 31 is fixed. The body width alteration means to alter the width of the body 32 without changing the height of the bottle 30. The full-length alteration means to alter the height of the bottle 30 without changing the width of the body 32. The similitude alteration means to alter both the height and the width of the bottle 30 under the condition that the ratio of the height to the width of the bottle 30 is kept.

Please replace the paragraph beginning on page 31, line 3 and ending on page 31, line 8 with the following paragraph rewritten in amendment format:

Also, the shape of the finished ~~finish~~ portion is not altered when the outer shape is modulated by the capacity modulating means. Therefore, it is unnecessary to reconfirm the shape of the finished ~~finish~~ portion following a modulation of the outer shape by the capacity modulating means. This allows for an efficient design of a container.

Please replace the paragraph beginning on page 32, line 2 and ending on page 32, line 20 with the following paragraph rewritten in amendment format:

Next, a method of a secondary processing will be explained. Thereupon, it is assumed that the secondary processing is performed under the condition that the shape of the finished finish portion 31 is fixed. First, a method for editing a solid model by using a Boolean operation will be explained. Note that, the Boolean operation is used for performing a shape alteration by calculating a logical sum (OR), a logical difference (XOR) or a logical product (AND) of two shapes. In this situation, one of the two shapes is the bottle 30 formed in the above-stated process and the other is a spoon shaped tool 45a shown in Fig.9. This tool 45 is inputted first and defined (S301). Otherwise, it is possible to read out and use the tool 45 upon keeping the tool 45 in the memory 5 in advance. Note that, when defining it, the tool 45 as a solid model is inputted under a conventional CAD operation. The tool 45 indicated herein is, for example, such a spoon shaped one by pressing down a center of a sheet of paper from the above with a finger. Next, a movement reference point for moving the tool 45 toward the bottle 30 is determined (S302). The tool 45 is moved by using this movement reference point, and is cut into the bottle 30 (30a) as shown in Fig.10 and Fig.11 (S303).

Please replace the paragraph beginning on page 39, line 6 and ending on page 39, line 13 with the following paragraph rewritten in amendment format:

Moreover, since an outer shape is subjected to a secondary processing under the condition that the shape of the finished ~~finish~~ portion 31 of the bottle 30 is fixed, there is no case where the shape of the finished ~~finish~~ portion 31 is automatically altered by the secondary processing. Owing to this, it is possible to perform a secondary processing to the outer shape without paying attention to the predetermined shape of the finished ~~finish~~ portion 31, thus improving the operationability of the secondary processing.